

PATENT REQUIREMENTS

- 190 1. Device for generating mechanical vibration with rotating eccentrics (10)
characterised by a system (1) with two or more force cells (2) with rotating
force vectors, where the resulting force vector of all force cells acts on a mass (3) and
where each force cell (2) consists of a rotating eccentric (10) driven by a separate
electrically controlled drive (11) that is mechanically coupled to an angle sensor (12) for
195 measuring the angular position of the respective eccentric in relation to a reference
direction.
- 200 2. Device according to requirement 1 characterised by a superior control
device (4) giving a signal (7) to a separate control and monitoring system (5) for each
force cell for setting of fixed or variable direction of rotation, rotational speed and phase
position in relation to a reference eccentric for each respective eccentric. The control and
monitoring system (5) receives, via an output signal (9) from the angle sensor (12),
information about the angle position of the eccentric and calculates the direction of
rotation, speed of rotation and phase position of the eccentric and by means of the signal
205 (7) regulates the correct direction of rotation, speed of rotation and phase position through
a signal (8) to the drive device (11) of the respective eccentric.
- 210 3. Device according to requirement 1 and 2 characterised by the superior
control device (4) receiving information about the parameters for a specific force vector
diagram through a control signal (6) and determining the direction of rotation, speed of
rotation and phase position of the eccentrics, the values of which are transmitted to all of
the control and monitoring systems (5) through the signal (7).
- 215 4. Device according to requirements 1-3 characterised by the mass centre of
the eccentrics (10) having approximately the same geometric axis of rotation (17) and that
the mass centre of the eccentrics (10) rotates in approximately the same geometric plane
(18).

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